Test Notes

Test Procedure/Task:				Test Date/Time:
Rev:	Issue:	DWP #:	WO #:	**07/28/09 2300**
Title:				

Site/Program:	Location:	Mission:	Effectivity:
CCAFS/Delta II	**Pad 17A**	**GPS IIR-21**	

Creator: **Dyer, James**	Work Group: **Tech Services Group**	Shift: **2**	Note Created: **07/28/09 2314**
Phone: **321-853-1909**			Note Updated:

Title of Test: **CX 17 Second Shift Test Notes**

Description of Test

FLCD DCI M2012 Booster paint repair complete to cure.

F23-T5 SRM Air start baffle 72 hour retorque complete.

F8-T3 Vehicle launch preps active. Insulation installlation active at boattail.

17B: AO 1D91754-1 Spacecraft cable routing complete.

Pad walkdowns complete.

CCN:
Hours:

Attachments

Test Notes

Test Procedure/Task:				Test Date/Time:
Rev:	Issue:	DWP #:	WO #:	**07/29/09**
Title:				

Site/Program:	Location:	Mission:	Effectivity:
CCAFS/Delta II	**Pad 17A**	**GPS IIR-21**	

Creator: **Bargers, Mike**	Work Group: **Engineering Propulsion**	Shift: **1**	Note Created: **07/29/09 1237**
Phone: **321-476-3127**			Note Updated:

Title of Test: **F11 Task02 HYPERGOL INSTALLATION**

Description of Test

Installed the following Hypergolic Igniters:
Main Engine: S/N OG0073610000-31
Vernier Engine #1: S/N 0X403007-112
Vernier Engine #2: S/N 0X403007-113
No anomalies. Great job by the crew.

CCN:
Hours:

Attachments

Test Notes

Test Procedure/Task: Rev: Issue: DWP #: WO #: Title:			Test Date/Time: 07/29/09
Site/Program: CCAFS/Delta II	Location: Pad 17A	Mission: GPS IIR-21	Effectivity:
Creator: Bargers, Mike Phone: 321-476-3127	Work Group: Engineering Propulsion	Shift: 1	Note Created: 07/29/09 1238 Note Updated:
Title of Test: F11 TASK 01			

Description of Test

Completed main lox valve inspection. No anomalies noted.

CCN:
Hours:

Attachments

Test Notes

Test Procedure/Task: Rev: Issue: DWP #: WO #: Title:			Test Date/Time: 07/29/09
Site/Program: CCAFS/Delta II	Location: Pad 17A	Mission: GPS IIR-21	Effectivity:
Creator: Stevenson, Kevin Phone: 321-853-1902	Work Group: Engineering Mechanical	Shift: 1	Note Created: 07/29/09 1528 Note Updated:
Title of Test: F8 T6 Spacecraft Erection Preps			

Description of Test

Active with erection preps. Completed shroud connector plate installation, Level 9C floor taping, and configuration of erection guide.
No anomalies noted during today's activity.

Good effort.

CCN:
Hours:

Attachments

Test Notes

Test Procedure/Task: **LPD-F008 T4** Rev: Issue: DWP #: WO #: Title:				Test Date/Time: **07/29/09**
Site/Program: **CCAFS/Delta II**	Location: **Pad 17A**	Mission: **GPS IIR-21**	Effectivity:	
Creator: **Galbreath, Mike** Phone: **321-476-3146**	Work Group: **Engineering Mechanical**	Shift: **2**	Note Created: **07/29/09 2150** Note Updated:	

Title of Test: **V.E. IGNITER THERMAL INSULATION**

Description of Test

- INSTALLED THE TWO THERMAL INSULATORS OVER THE V.E. IGNITERS

- INSTALLED THE MAIN ENGINE FLAMEGUARD WITH THE EXCEPTION OF THE CRIMP SLEEVE. THE 28-1C CRIMP SLEEVE USUALLY COMES WITH THE FLAME GUARD BUT WAS NOT SECURED TO THE CABLE ON THIS ASSEMBLY.

GREAT JOB BY CREW TONIGHT.

CCN: **8WEH2YSE-L**
Hours: **8**

Attachments

Test Notes

Test Procedure/Task: Rev: Issue: DWP #: WO #: Title:				Test Date/Time: **07/29/09 0730**
Site/Program: **CCAFS/Delta II**	Location: **Battery Lab - DII**	Mission: **GPS IIR-21**	Effectivity:	
Creator: **Dehestani, Nahid** Phone: **321-853-5235**	Work Group: **Engineering Electrical**	Shift: **1**	Note Created: **07/29/09 1641** Note Updated: **07/29/09 1646**	

Title of Test: **GPS IIR-21 Battery Processing**

Description of Test

3rd stg batteries 5-0002 and 5-0003 remain under continuous monitoring during the 1st shift working hours. Ref: M570-Task 1 (2nd issue and 3rd issue); All voltages are above 1.82 VDC except for cell 13 / 5-0002 which has dropped to 1.676 VDC

Peroxide Reduction on flight batteries 40-0400 (1sys1), 40-0401 (1sys2), and 40-0402 (2sys1)was completed today; Removed 8.0 Amp-Hours from each battery as follows:

4.0 Amps load @ 2 hours = 8.0 Amp-Hours

Ref: M593-R41, M594-R41, and M595-R41

Active with "Step-2 charge" on test battery 40-0304A (2sys1)
Ref: M596-R41-Task 2

CCN: **8WEH2Y****
Hours: **8**

Attachments

Test Notes

Test Procedure/Task: **LPD-V019 T3** Rev: **82** Issue: **1** DWP #: **138939** WO #: Title: **Second Stage Hydraulic Sys Quals**				Test Date/Time: **07/29/09 0640**
Site/Program: **VAFB/Delta II**	Location: **Launch Pad (SLC2)**	Mission: **WorldView-2**	Effectivity:	
Creator: **McCarty, Mike** Phone: **805-606-6340 x2318/6**	Work Group: **Operations**	Shift: **1**	Note Started: **07/29/09 1026**	
Title of Test: **TC Notes: V19 cont'd**				

Description of Test

Time	H/A	Description
0640		ALCS turn on in work. Will continue to use secondary 485 bus; primary still anomalous
0700		Pretest briefing.
0743		SS TM, P&C and RIFCA turn on in progress
0815		Complete thru item 7. In work on SS Slew Preps
0830		Item 8 SS Slew Preps; Item 9 SS Internal Redundacy cks complete;Item 10 SS Epkg Cross Bus cks in work. Will run to 19 min and record temperatures during run and during cooldown period.
0935		Cooldown period completed continuing with item 10
1005		Item 10, Item 11 SS Engine Clearance checks & slews -Item 12 SS Hyd Pump Turn off complete. 19 min 45 sec pump run complete no issues. Temp data collected during this run also.
1011		Item 14 SS Vic Test Preps in work
1040		VIC Test preps in work.
1110		Complete with item 15 Pitch Actuator Vic Test. Continuing with prep steps in item 16
1210		Continuting with item 16 Yaw Actuator Vic Test
1230		Complete with item 16 Vic test.
1231		Item 17 Vic test securing in work
1245		Item 17 complete. Vehicle power down in progress
1300		ALCS securing complete

CCN:
Hours:

Test Notes

Test Procedure/Task: **LPD-V019 T3** Rev: **82** Issue: **1** DWP #: **138939** WO #: Title: **Second Stage Hydraulic Sys Quals**				Test Date/Time: **07/29/09 0700**
Site/Program: **VAFB/Delta II**	Location: **Launch Pad (SLC2)**	Mission: **WorldView-2**	Effectivity:	
Creator: **Galindo-Jr, Pedro** Phone: **805-606-6340 x6239/2**	Work Group: **Engineering Electrical**	Shift: **1**	Note Created: **07/29/09 1601** Note Updated: **07/29/09 1601**	
Title of Test: **Second Stage Hydraulic System Quals**				
Description of Test				
Completed Second stage Hydraulic system qualifications. No anomalies. **Great job by the crew.**				
CCN: Hours:				
Attachments				

Test Notes

Test Procedure/Task: Rev: Issue: DWP #: WO #: Title:				Test Date/Time: **07/29/09**
Site/Program: **VAFB/Delta II**	Location: **Launch Pad (SLC2)**	Mission: **Non-Flight**	Effectivity:	
Creator: **Moen, Tillman** Phone: **805-606-6340 x2278**	Work Group: **Engineering Facilities**	Shift: **1**	Note Created: **07/29/09 1830** Note Updated:	
Title of Test: **MST/FUT Revialization**				
Description of Test				
On Tuesday, 07/28/09, contractor Diani/Bragg completed the initial removal and replacement of the four personel access ladders at MST level 6 and above. Requirement for ladder replacement found during MST/FUT Revialization task. **Finalized installation/securing of three of the four ladders has now been complete.** **The contractor will be on site tommorow to accomplish completion of the installation task.**				
CCN: Hours:				
Attachments				

Test Notes

Test Procedure/Task: Rev: Issue: DWP #: WO #: Title:			Test Date/Time: **07/29/09 1530**
Site/Program: **VAFB/Delta II**	Location: **Launch Pad (SLC2)**	Mission:	Effectivity:
Creator: **Hillier, Ed** Phone: **805-606-6340 x2209**	Work Group: **Tech Services Group**	Shift: **1**	Note Created: **07/29/09 1824** Note Updated:
Title of Test: **SLC-2 TSG FIRST SHIFT**			

Description of Test

DELTA:

- **V158 T1/3 DAILY FACILITY CHECKS ----------COMPLETE**
- **MAINTENANCE SUPPORT & 7I WORK ORDERS ---------ACTIVE WITH MISC WORKORDERS**
- **ENVIRONMENTAL COMPLIANCE / CAL LAB / LPD PARTS PULL SUPPORT --------ACTIVE AND ON GOING**
- **HYDRO LAB ---------- ACTIVE AND ON GOING**
- **A/C / PROOFLOAD / MACHINE SHOP SUPPORT ---------ACTIVE WITH MISC A/C / MACHINE SHOP ITEMS, SEE CHAMBLESS TEST NOTES FOR PROOFLOAD AREA**

WORLDVIEW-2:

- **V42 T2 DAILY VEHICLE INSP ---------COMPLETE**
- **V48 T1 AGE & VEHICLE TURN-ON/TURN-OFF -------COMPLETE FOR TODAY**
- **VLCD DCI E1007 FTS BATTERY PROCEDURE CHECKOUT --------COMPLETE FOR TODAY, SEE ENG TEST NOTES FOR DETAILS (SMITH)**
- **V19 T4 B-NUT TORQUE CHECKS (2ND STAGE) ---------ACTIVE**
- **V19 T3 2ND STAGE HYD SYS QUALS ---------COMPLETE**
- **V86 T4 INTEGRATED A/C SYSTEM VERIFICATION ----------ACTIVE**
- **V20 T6 S/C TO EEB CHECKOUT ----------COMPLETE**
- **V18 T1 1ST STAGE PROP QUALS ----------ACTIVE**
- **V91 T12 / T27 PUMP LOW / HIGH GN2 PRESS ----------COMPLETE**

ED HILLIER / RAY ALCAMO

CCN:
Hours:

Attachments

Test Notes

Test Procedure/Task: **LPD-V018 T1** Rev: **39** Issue: **1** DWP #: **138978** WO #: Title: **Propellant and Pneumatic Leak and Functional Checks**			Test Date/Time: **07/29/09 0500**
Site/Program: **VAFB/Delta II**	Location: **Launch Pad (SLC2)**	Mission: **WorldView-2**	Effectivity:
Creator: **Silveri, Joe** Phone: **805-606-6340 x2510**	Work Group: **Engineering Propulsion**	Shift: **1**	Note Created: **07/29/09 1834** Note Updated:
Title of Test: **Propellant and Pneumatic Leak and Functional Checks**			

Description of Test

Completed power-off testing, Items 1-0 through 9-0, as scheduled including FIP's functional checks, Start Tank Pssg Check Valve leak checks, Lube System leak checks, FABU functional check and FABU internal leak check.

CCN:
Hours:

Attachments

Test Notes

Test Procedure/Task: Rev: Issue: DWP #: WO #: Title:			Test Date/Time: 07/29/09
Site/Program: VAFB/Delta II	Location: Launch Pad (SLC2)	Mission:	Effectivity:

Creator: Lemmon, Eric Phone: 805-606-6340 x2238	Work Group: Engineering Facilities	Shift: 1	Note Created: 07/29/09 1310 Note Updated:

Title of Test: **Facility Engineer's Activity Report**

Description of Test

MST AND HPF GROUNDING: Concrete and asphalt sawing began on Monday, and will continue for the rest of the week. A 12-inch-wide trench will encircle the HPF (1615), with leader trenches at four corners and near the transformer pad. Bare 4/0 copper conductor will create a counterpoise to which leader wires from the lightning protection system will extend. The contractor will ensure a solid connection between the new grounding network and the building's scructural steel, and to the X0 terminal of the distribution transformer.

Trenching around the MST tracks is in progress as well, with perhaps 80% of the sawing complete. The contractor will work forward from the park position, allowing the MST to be moved at any time. Metal traffic plates will be emplaced as necessary, when the trenches are opened, to permit vehicle traffic to cross. One of the issues we confronted was how to cross the power and communications trench in two locations. I agreed with the contractor's proposal to carefully lay the cables to one side while drilling through the walls of the narrow trench, and then sleeving that penetration with PVC to protect the cables after restoration. ULA and Quintron technicians will be in attendance when these cables are moved and replaced.

When this project is completed, there will be a common grounding system which will include the MST, the Launch Mount, the FUT, and the EEB. The existing method of grounding the MST to Mother Earth will be greatly improved, replacing spring-action static grounding clips with heavy-duty CamLoc connectors. The new method will greatly reduce the impedance of grounding connections, since the coils of excess conductor will be eliminated. In addition, the positive and common connection of the MST structure to the Launch Mount will likely eliminate the possibility of a side flash between the rocket and a nearby platform, should the MST take a lightning strike. Although it is popularly believed that any mobile structure that moves on steel rails is grounded through its wheels, such a condition seldom exists. Unless the bogies are equipped with contact brushes that are intended to carry current, the film of lubricant in the wheel bearings provides an insulation barrier between the structure and the wheels. This was proven back in the early 80's when it was discovered that the SAB (Shuttle Assembly Building) at SLC-6 was not solidly grounded to the rails when all other electrical connections were lifted. A lightning strike to a mobile structure may cause severe damage to the wheel bearings if an effective grounding path is not provided.

All personnel operating vehicles on SLC-2W should be aware that traffic will be restricted to certain routes as the trenching work proceeds. These areas will be identified with pylons and caution tape. The connection of the copper grounding conductors to the ground rods and to the rails will use an exothermic welding process known as "Cadweld" which has been approved by the Fire Marshal for this purpose. This is a non-electric process that will generate a small amount of smoke and some sparks for about 15 seconds. Suitable precautions will be taken for fire protection and worker safety. Casual personnel are requested to remain at least ten feet away from Cadweld locations during the connection procedure.

CCN:
Hours:

Attachments